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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: Dupont-Newport: Comments on the FFS DATE: 10-9-92

FROM: Robert S. Davis, Coordinator (3HW13)
Biological Technical Assistance Group

TO: John R. Sturgeon, RPM (3HW42)
Delaware/Maryland Section

BTAG has reviewed the Focused Feasibility Study and the following comments are offered in addition to those you have already received in my preliminary comments memo. The comments below are presented on behalf of BTAG members from NOAA and EPA. FWS has not participated in this review.

Major concern is raised over the approaches used in selecting the reference station and in the handling of sediment data vis-a-vis "criteria." The investigator has proceeded to use a reference location that is highly impacted by either industrial or agricultural activities (or both) so that it fails to represent an adequate point for comparison. Their selection of background soil levels is also questioned. Toxicity testing and the tiered approach also attracted attention.

As you know, we prefer reference locations that are relative clean and free from site-associated contaminants. Other sampling locations on the Christina River that were sampled are preferable. Unfortunately, we were all caught in a time constraint which forced us to use a less-than-satisfactory reference.

It is suggested that a new reference station be selected for the design and post-remediation phases. The investigator should either select another station on the River that reflects the above constraints regarding a sampling location that is relatively free of contamination (site-related) or, preferably, contact John Maxted of DNREC to identify other streams in the coastal plain ecosystem that will represent good conditions for comparison.

With regard to sediment, it is obvious that most of the sampling locations on the Christina show sediment enrichment that is a result of the activities of man. Station RS15, the reference station referred to above, also falls into this category. The problem of sediment criteria also is raised in the FFS and the investigator makes an effort to justify SEM and AVS. Both of

these approaches should be specifically excluded as they are both unsuited to the environmental conditions of the Christina River. Currently, the practice is to establish criteria on a case-by-case basis, using background levels,ARARs, Chemistry, and toxicity testing.

The document relied heavily on the enrichment factors (EF) of sediment and often ignored important details in the effort to arrive at levels of contaminants that are acceptable in their view. Since RS15 was used as the reference site, all other EF's appear to be skewed, except for certain stations where levels were low, generally. Using a different reference site would change the sediment contamination picture drastically and very likely expand the area for remediation. It is recommended that the investigator select a different and cleaner reference location and during design so that comparative risk assessment can be carried out if additional work is contemplated.

With regard to soils, the validity of using the national levels from Shacklette (1984) is questioned (see Table 10). A more appropriate comparison would be made if the soils of northern Delaware were used. The national averages include soils that have been subjected to agricultural and industrial activities and soils found in geological settings where ores may be found. Here again, an appropriate reference soil should be selected for the design and post-remediation phases.

It is noted that toxicity testing used the 75% survival level of the control as a baseline for comparison. While we believe that the 75 survival criterion is arbitrary and that a statistically derived comparison to controls (where controls have a 90% survival) is a valid and perhaps preferred approach, it is recognized that sediment toxicity can be highly variable. Therefore the 75 survival criterion is acceptable.

It is also noted that the supplement to the FFS includes a tiered approach to making remedial decisions. While we approve of and even encourage tiered and matrix approaches to decision making, we note that their use of the tiered approach in this supplement is misleading. It is used in such a way as to obviate any but the most remote chances of remediation. As such, it should be totally disregarded in their context and carried out by EPA as a separate exercise.

Finally, we have also reviewed your Wetlands Remediation Goals and note that you did not include the basis for selecting the criteria (see page 4). As you may recall, I sent you a memo on 9/11/92 recommending that such a rationale be included. BTAG supports this suggestion and it is strongly suggested that you include a detailed explanation of the basis of those numbers.

Thank you for the opportunity to comment on the FFS and supplement and if you have any questions, please do not hesitate to contact me on 3155.